

#4/A  
1-30-04  
RECEIVED  
CENTRAL FAX CENTERIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

JAN 27 2004

**Applicant(s):** Matthew R. Arnold, et al.**Examiner:** Kuo-Liang J. Tang**Serial No:** 09/703,527**Art Unit:** 2122**Filed:** November 1, 2000**Docket:** YOR920000357US1 (13734)**For:** SYSTEM AND METHOD FOR  
CHARACTERIZING PROGRAM  
BEHAVIOR BY SAMPLING AT  
SELECTED PROGRAM POINTS**Dated:** January 29, 2004Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450AMENDMENT

Sir:

Responsive to the Office Action of October 29, 2003, Applicants respectfully request the Examiner to reconsider the application in view of the following amendments and remarks.

**Amendments to the Specification** begin on page 2 of this paper.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 3 of this paper.

**Remarks** begin on page 9 of this paper.

---

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

**Dated:** January 29, 2004  
Steven Fischman

**IN THE SPECIFICATION:**

Please amend the specification on page 7, lines 14-25 as follows:

A1  
--A preferred embodiment implements a timer based approach. Preferably, associated with **shouldTakePrologueYieldPoint** and **shouldTakeLoopYieldPoint** is the reserved bit ~~A trigger bit~~ @ "trigger bit" which is initially set to 0. Using standard operating system signal mechanisms, an interrupt is arranged to occur at periodic time intervals. An interrupt handler is coded to catch the timer interrupt. When the handler catches the interrupt, it sets the trigger bit to be 1. Yield points check the value of the trigger bit, and when it is 1 the yield point is taken, a sample is collected, and the trigger bit is reset to 0. In this implementation, the pseudo code for prologue yield points is as follows: --

Please amend the specification on page 9, lines 6-15 as follows:

2  
A  
--A third approach blends the first two implementations by using a combined counter and timer based yield points in method prologues with a timer only yield point in loops. This may be desirable to support profile-directed inlining in the manner as described in commonly-owned, co-pending U.S. Patent application No. 09/703,316 \_\_\_\_\_ (YOR9200000358, D#13735), the contents and disclosure of which are incorporated by reference herein. An implementation of this approach is given by the following pseudo-code for prologue yield points: --

Please amend the specification on page 11, lines 5-13 as follows:

3  
A  
--In addition to incrementing a method counter, more complex samples may be taken to aid method inlining. For example, the techniques described in commonly-owned, co-pending U.S. Patent Application No. 09/703,530 \_\_\_\_\_ (YOR9200000357, D#13732) entitled METHOD FOR CHARACTERIZING PROGRAM EXECUTION BY PERIODIC CALL-STACK INSPECTION, the contents and disclosure of which is incorporated by reference as if fully set forth herein, are potential embodiments for **takePrologueSample**, and may be used for ascertaining call-context of executing program methods. --